

NUTRIENT MANAGEMENT

PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service - practice code 590



NUTRIENT MANAGEMENT

This practice involves managing the amount, placement, and timing of plant nutrients to obtain optimum yields and minimize the risk of surface and groundwater pollution.

PRACTICE INFORMATION

Nutrient management may be used on any area of land where plant nutrients are applied to enhance yields and maintain or improve chemical and biological condition of the soil. The source of plant nutrients may be from organic wastes, commercial fertilizer, legumes, or crop residue. The objective is to apply the proper amount of nutrients at the proper time to achieve the desired yield and minimize entry of nutrients into surface or groundwater supplies.

Planning Nutrient Management involves the following considerations:

1. National, state and local water quality standards
2. Sources and forms of plant nutrients available to the farmer
3. Amounts and timing of nutrients based on soil testing, planned yield and growing season of target plants
4. Evaluate use of crop rotations that enhance efficiency of nutrient utilization and improve soil tilth
5. Consider waste storage requirements and land area requirements for proper management of plant nutrients.
6. Others

Additional information including standards and specifications are filed in the local NRCS Field Office Technical Guide.

The following pages contain the conservation effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. Users are cautioned that these effects are estimates that may or may not apply to a specific site.

CONSERVATION PRACTICE PHYSICAL EFFECT WORKSHEET

NOTE: recorded in Microsoft word 6.0 - use tabs to change cells/fields

STATE	Iowa	FIELD OFFICE		DATE	12/5/96
PRACTICE: 590 Nutrient Management			NOTES:		
RESOURCE: SOIL			Help Message: Click on form field for choice lists. Tab key to move around. "N/A" is the default.		
RESOURCE CONCERN: EROSION					
RESOURCE INDICATORS			PHYSICAL EFFECTS		
SHEET AND RILL			situational concerning sheet and rill erosion		
WIND			situational concerning wind erosion		
EPHEMERAL GULLY			situational concerning ephemeral gullies		
CLASSIC GULLY			N/A		
STREAMBANK			N/A		
IRRIGATION INDUCED			N/A		
SOIL MASS MOVEMENT			N/A		
ROADBANK/CONSTRUCTION			N/A		
OTHER					
RESOURCE CONCERN: SOIL CONDITION					
SOIL TILTH			significant improvement in soil tilth		
SOIL COMPACTION			insignificant		
SOIL CONTAMINATION					
• SALTS			insignificant		
• ORGANICS			significant decrease in organic contaminants		
• FERTILIZERS			significant reduction in contaminants from fertil.		
• PESTICIDES			N/A		
• OTHER					
DEPOSITION/DAMAGE					
• ONSITE			N/A		
• OFFSITE			N/A		
DEPOSITION/SAFETY					
• ONSITE			N/A		
• OFFSITE			N/A		
OTHER					
RESOURCE: WATER					
RESOURCE CONCERN: WATER QUANTITY					
SEEPS			N/A		
RUNOFF/FLOODING			N/A		
EXCESS SUBSURFACE WATER			N/A		
INADEQUATE OUTLETS			N/A		
WATER MGT. IRRIGATION					
• SURFACE			N/A		
• SPRINKLER			N/A		
WATER MGT. NON-IRRIGATED			N/A		
RESTRICTED FLOW CAPACITY (drainage)					
• ONSITE			N/A		
• OFFSITE			N/A		
RESTRICTED STORAGE			N/A		
OTHER					

RESOURCE: WATER	
RESOURCE CONCERN: WATER QUALITY	
RESOURCE INDICATORS	PHYSICAL EFFECTS
GROUNDWATER CONTAMINANTS	
• PESTICIDES	N/A
• NUTRIENTS AND ORGANICS	sign poten. decrease/GWater contam./nutr,organ.
• SALINITY	insignificant
• HEAVY METALS	insignificant
• PATHOGENS	insignificant
• OTHER	
SURFACE WATER CONTAMINANTS	
• PESTICIDES	insignificant
• NUTRIENTS AND ORGANICS	sign. reduction in SWater contam./nutri.,organics
• SUSPENDED SEDIMENTS	insignificant
• LOW DISSOLVED OXYGEN	insignificant
• SALINITY	insignificant
• HEAVY METALS	insignificant
• WATER TEMPERATURE	N/A
• PATHOGENS	insignificant
AQUATIC HABITAT SUITABILITY	significant improvement in Aqua. Hab. Suit.
OTHER	
RESOURCE: AIR	
RESOURCE CONCERN: AIR QUALITY	
AIRBORNE SEDIMENT AND SMOKE PARTICLES	
• ONSITE SAFETY	N/A
• OFFSITE SAFETY	N/A
• ONSITE STRUCT. PROBLEMS	N/A
• OFFSITE STRUCT. PROBLEMS	N/A
• ONSITE HEALTH	N/A
• OFFSITE HEALTH	N/A
AIRBORNE SEDIMENT CAUSING CONVEYANCE PROBLEMS	N/A
AIRBORNE CHEMICAL DRIFT	N/A
AIRBORNE ODORS	N/A
FUNGI, MOLDS, AND POLLEN	N/A
OTHER	
RESOURCE CONCERN: AIR CONDITION	
AIR TEMPERATURE	N/A
AIR MOVEMENT (windbreak effect)	N/A
HUMIDITY	N/A
OTHER	

[illegible]

RESOURCE: HUMAN	
RESOURCE CONCERN: SOCIAL CONSIDERATIONS	
RESOURCE INDICATORS	PHYSICAL EFFECTS
PUBLIC HEALTH AND SAFETY	N/A
PRIVATE/PUBLIC VALUES	N/A
CLIENT CHARACTERISTICS	N/A
RISK TOLERANCE	N/A
TENURE	N/A
OTHER	
RESOURCE CONCERN: CULTURAL CONSIDERATIONS	
ABSENCE/PRESENCE OF CULTURAL RESOURCES	N/A
SIGNIFICANCE OF CULTURAL RESOURCES	N/A
MITIGATION OF NEGATIVE CULTURAL RES. IMPACTS	N/A
OTHER	